

REMARKS

Claims 1-3, 5-14 and 16-26 are pending. In accordance with the foregoing, claims 1, 12, 23, 24 and 25 are amended. New claim 27 is added. In the above referenced Office Action, claims 1-3, 5-14 and 16-26 stand rejected. Applicant respectfully traverses the rejections and requests a withdrawal of all rejections as set forth below.

Claims 1-3, 5-14 and 16-26 stand rejected under 35 U.S.C. 102(e) as being anticipated by Zhou (U.S. 7,027,856). As the Examiner is well aware, in order for a reference to anticipate a claim, that reference must teach each element of the properly construed claim. Contrary to the Examiner's assertion, Zhou fails to teach, among other things, adjusting parameters associated with delivery of a therapy in response to the detected sudden increased frequency of first sensed events. Zhou discloses a method for detecting non-sustained arrhythmias and determining a non-sustained arrhythmia metric for predicting the occurrence of a sustained arrhythmia. If a prediction threshold is crossed, an arrhythmia prevention therapy may be delivered. However, Zhou never teaches, suggests or implies that an arrhythmia prevention therapy parameter is adjusted in response to detecting an increased frequency of first sensed events. Zhou merely delivers the prevention therapy. If a sustained arrhythmia is detected an anti-arrhythmia therapy is delivered according to normal operation of the device. Adjustment of an arrhythmia prevention therapy is not taught. For at least this reason, Applicant respectfully asserts the rejection is improper and should be withdrawn.

Claims 26 is alternatively rejected under 35 U.S.C. 103(a) as obvious over Zhou in view of Van Bolhuis (U.S. 2004/0215273). Van Bolhuis fails to remedy the deficiency of Zhou relating to adjusting the arrhythmia prevention therapy parameter.

Claims 1-3, 5-7, 12-14, 16-18 and 23-25 stand variously rejected under 35 U.S.C. 103(a) as being unpatentable over Mehra (U.S. 6185459). Mehra teaches a method for pacing in a tachyarrhythmia prevention pacing mode for an

extended time period extending over more than one day, monitoring a success metric over that extended period of time and adjusting tachyarrhythmia prevention pacing mode if the monitored metric falls outside a predefined range for the success metric (claim 1). Mehra addresses the prevention of tachyarrhythmias by pacing in a prevention mode for extended time periods and determining which available modes reduce the frequency of arrhythmias most effectively according to the success metric determined during the extended time period. The arrhythmias are thus monitored during the extended time period *while the therapy is being delivered*. The instant invention addresses a different issue relating to initiating a therapy in response to a sudden increase in detecting first events corresponding to triggering the onset of a second event. A therapy parameter is adjusted in response to detecting the sudden increased frequency and then the therapy is initiated using the adjusted parameter. The therapy is not being delivered for an extended period of time during which the first events are being monitored as described by Mehra.

Mehra alternatively describes monitoring the success metric while arrhythmia prevention therapy is present and while the arrhythmia prevention therapy is disabled. In this embodiment, the device simply determines whether or not delivery of the prevention therapy is appropriate according to the success metric. Again, Mehra fails to teach or suggest detecting a sudden increase in the frequency of the first events prior to delivering a therapy, adjusting a therapy parameter in response to detecting the sudden increase, and then initiating the therapy in response to detecting the sudden increase. Applicant respectfully asserts the present claims, as amended, would not be obvious to one having skill in the art based on the teachings of Mehra without the benefit of the teachings of the instant application. Specifically, it would not be obvious to one having ordinary skill in the art based on the cited prior art, alone or in combination, to adjust a therapy parameter in response to an increased frequency of first events being detected before the therapy is delivered and then initiating the adjusted therapy.

Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mehra (U.S. 6185459) in view of van Bolhuis'. Van Bolhuis fails to remedy the deficiencies of Mehra set forth above. The Examiner contends that an increase in PAC frequency would inherently require a shorter coupling interval since the coupling interval is inherently the characteristic that sets the inter-PAC duration. Applicant traverses. A given number of PACs could occur over a defined period of time at one coupling interval and an equal number of PACs could occur over an equal period of time but at a shorter coupling interval, with no increase in PAC frequency. The coupling interval is the interval between a sinus P-wave and the premature depolarization associated with the PAC. For example, 3 PACs could occur during one minute with each PAC having a coupling interval to a corresponding sinus P-wave of 150 ms. Three PACs could also occur during one minute with each PAC having a coupling interval of 100 ms. The PAC frequency is the same with the coupling interval being different.

Applicant respectfully asserts that the present claims are in condition for allowance. Withdrawal of the instant rejections and issuance of a Notice of Allowance is respectfully requested.

Respectfully submitted,

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